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Capillary monoliths for the analysis of nucleic acids by high-performance liquid chromatography-electrospray ionization mass spectrometry

H Oberacher, C G Huber... - *TRAC Trends in Analytical Chemistry*, 2002 - Elsevier

... separation system is on-line hyphenated to ESI-MS, and this allows nucleic acids to ... mass-transfer properties is particularly important for the rapid and highly efficient separation of large ... transfer is the use of porous stationary phases that possess a bimodal pore size distribution ...

Cited by 74 - Related articles - All 7 versions

Micropreparative fractionation of DNA fragments on metalathesis-based monoliths: influence of stoichiometry on separation

S Lubbad, B Meyl, C G Huber... - *Journal of Chromatography A*, 2002 - Elsevier

... volume, all of the mobile phase is forced to flow through the pores of the ... separation media also possess distinctive advantages for preparative scale separations of nucleic acids [14 ... is still hard to predict the optimum monolith composition for a particular separation problem, there ...

Cited by 49 - Related articles - All 7 versions

New designs of macroporous polymers and supports: from separation to biocatalysis

F Svec... - *Science*, 1996 - sciencemag.org

... For example, small pores and large surface areas are essential for many supported catalysts and gas chromatography packings, whereas the separation of nucleic acids or the immobilization of enzymes require significantly larger pores. ...

Cited by 372 - Related articles - All 10 versions

Molded continuous poly (styrene-co-divinylbenzene) rod as a separation medium for the very fast separation of polymers Comparison of the chromatographic ...

M Petro, F Svec... - *Journal of Chromatography A*, 1996 - Elsevier

... In this case the mobile phase is driven through relatively large pores within the ... has a large effect, as demonstrated for the very fast separation of proteins and nucleic acids in ... We have developed a continuous separation medium in the shape of a rigid continuous macroporous ...

Cited by 66 - Related articles - All 10 versions

High-performance liquid chromatography-electrospray ionization mass spectrometry of single- and double-stranded nucleic acids using monolithic capillary columns

A Preimstaetter, H Oberacher... - *Analytical chemistry*, 2000 - ACS Publications

... rapid chromatographic separation of large molecules having low diffusivities such as nucleic acids ... to circumvent intraparticle diffusion is the complete elimination of the support pores resulting in ... 27.35 Consequently, to maintain the separation speed and performance upon the ...

Cited by 244 - Related articles - All 5 versions

(CITATION) High-speed bioseparation with monolithic columns

S Xie, J Lin, P Wagner... - Poster

Cited by 2 - Related articles

Advances in capillary electrochromatography and micro-high performance liquid chromatography monolithic columns for separation science

(PDF from crush)

C Leung, Quigley, ND Martin, V Melin... - ..., 2003 - Wiley Online Library

... Within the monolith and on the surface of the capillary and packing are residual silanol groups. ... Tanaka et al. [17, 18] have perfected their silica rods by studying the mechanism of pore formation and its relevance to the separation of proteins and peptides. ...

Cited by 184 - Related articles - All 7 versions

Polynucleotide separations on polymeric separation media

DT Gjerde, PD Taylor... - US Patent 6,521,124, 2001 - Google Patents

... phy-Electrospray Ionization Mass Spectrometry of Single- And Double-Stranded Nucleic Acids Using ... et al., Temperature, A Simple and Efficient Tool for the Control of Pore Size Distribution in ... embodiment, the monolith is characterized by having a DNA Separation Factor of at ...

Sailed by 26 - Related articles - All 5 versions

Electrophoretic inorganic porous material

JP Day, J Lahiri, S Pal... - US Patent App. 20,030 ..., 2002 - freepatentsonline.com

... method of claim 22, wherein said sol gel monolith has pores with an average pore diameter greater ... The method of claim 17, wherein said molecules are nucleic acids. ... The method of claim 17, wherein said inorganic separating media enables separation of proteins in western ...

Catched

Electrophoretic inorganic porous material

JP Day, J Lahiri, S Pal, MA Quezada... - US Patent App. 10/..., 2002 - Google Patents

... method of claim 22, wherein said sol gel monolith has pores with an average pore diameter greater ... The method of claim 17, wherein said molecules are nucleic acids. ... The method of claim 17, wherein said inorganic separating media enables separation of proteins in western ...

Capillary array high-performance liquid chromatography of nucleic acids and proteins

A Preimstaetter, PJ Ceiniger, H Oberacher... - *Analytical chemistry*, 2002 - ACS Publications

As a consequence, differences in pore size and surface area between columns necessitated different concentrations of ... of laser-induced fluorescence detection enables the ready application of the array to the separation of biomolecules other than nucleic acids. ...

Cited by 25 - Related articles - All 5 versions

Nucleic acid separation using immobilized metal affinity chromatography

RC Willsch... - US Patent App. 20,040/152,378, 2001 - freepatentsonline.com

... purine or pyrimidine moieties or groups such as RNA and other single stranded nucleic acids followed or preceded by a zone designed to affect a separation of the ... This type of compound column can be made using monolith technology and running a small amount of ...

Catched

Theoretical aspects of separation using short monolithic beds

TB Tennakova, ... - Journal of chromatography library, 2003 - Elsevier

... We have demonstrated earlier in this chapter that HPMDC of proteins and nucleic acids differs noticeably ... We indicated that the separation process in the former is not affected to a significant ... by diffusion through the stagnant pool of the mobile phase located in pores typical of ...

Cited by 2 - Related articles - BL Direct - All 2 versions

Application of membranes and compact, porous units for the separation of biopolymers

D Josic, ... - Industrial & engineering chemistry research, 1999 - ACS Publications

... is not limited to the separation of proteins but includes other complex biopolymers such as nucleic acids, ... Because of the lack of smaller pores, the specific surface of the support is very small, reducing ... Table 1. Review of Some Commercially Available Fast Separation Materials. ...

Cited by 75 - Related articles - BL Direct - All 2 versions

Polynucleotide separations on polymeric separation media

DT Gierde, PD Taylor, ... - US Patent 6,305,791, 2002 - Google Patents

Double Pore Silica Gel Monolith Applied to Liquid Chromatography, J. Sol-Gel Science & ... Nakanishi et al., Phase Separation in Silica Sol-Gel System Containing Poly(Ethylene Oxide) ... Nordhoff et al, Mass Spectrometry of Nucleic Acids, Mass Spectrometry Reviews, 15:67-138 ...

Cited by 7 - Related articles - All 2 versions

Polynucleotide separations on polymeric separation

DT Gierde, PD Taylor, ... - US Patent 6,305,791, 2001 - Google Patents

Double Pore Silica Gel Monolith Applied to Liquid Chromatography, J. Sol-Gel Science & ... Nakanishi et al., Phase Separation in Silica Sol-Gel System Containing Poly(Ethylene Oxide) ... et al., High-Resolution Liquid Chromatography of Fluorescent Dye-Labeled Nucleic Acids, Analytical ...

Cited by 2 - Related articles - All 2 versions

Nucleic acid analysis

CG Huber, H Oberacher - Journal of chromatography library, 2003 - Elsevier

... This drawback can be addressed by the elimination of diffusive pores, which restricts the mass transfer to a thin, retentive layer ... and mesopores may be adequately described as a microporelike monolith [21] and has been shown to enable the separation of nucleic acids over ...

Cited by 1 - Related articles - BL Direct - All 2 versions

Separation media, multiple electrospray nozzle system and method

TN Corso, GA Schultz, SP Prosser, ... - US Patent 6,586,988, 2003 - Google Patents

... channels filled with a separation material such as polymer monolith which can ... stacked in multiple blocks for sequential two-dimensional chromatographic separation and integrated ... Different PCR Amplification Systems in Microfabricated Silicon-Glass Chips, Nucleic Acids Res ...

Cited by 24 - Related articles - All 4 versions

Capillary electrochromatography in anion-exchange and normal-phase mode using monolithic stationary phases

M Lemmermeyer, F Svac, MJJ Frechet, ... - Journal of Chromatography A, 2001 - Elsevier

... 2b shows that the modal pore size of a monolith prepared from a mixture containing 32 ... or high contents of the ionizable monomer, is less than ideal and the complete separation of the ... This results in the creation of monoliths with pore volumes smaller than the theoretical value or ...

Cited by 83 - Related articles - All 10 versions

Application of very short monolithic columns for separation of low and high molecular mass substances

A Podgornik, M Barut, S Jakša, ... - Journal of liquid ... , 2002 - Taylor & Francis

... and DNA are like flexible licks, which rotate during their passage through the pores ... The values of HEPC vary from 15 um for oligonucleotides containing four nucleic bases up to ... of Convective Interaction Media (CIM5) Disk Monolithic Columns for Fast Separation and Monitoring ...

Cited by 26 - Related articles - BL Direct - All 5 versions

Polynucleotide separations on polymeric separation media

DT Gierde, PD Taylor, ... - US Patent 6,482,311, 2002 - Google Patents

Nakanishi et al., Double Pore Silica Gel Monolith Applied to Liquid Chromatography, J ... Nakanishi et al., Phase Separation in Silica Sol-Gel System Containing Poly(Ethylene Oxide) ... et al., High-Resolution Liquid Chromatography of Fluorescent Dye-Labeled Nucleic Acids, Analytical Bio ...

Related articles - All 4 versions

Hydrophobic, pellicular, monolithic capillary columns based on cross-linked polynorborene for biopolymer separations

B Mayr, G Holzl, K Eder, MR Buchmeiser, ... - Analytical ... , 2002 - ACS Publications

... that have only poor solvating capabilities for the polymer ensure the formation of large pores ... the latter is eminently suited for the separation of single- and double-stranded nucleic acids ... 26

A practical example for the separation of single-stranded oligodeoxynucleotides by IP-RP ...

Cited by 77 - Related articles - BL Direct - All 4 versions

Column for DNA separation by matched ion polynucleotide chromatography

DT Gierde, RM Havelis, R Hecker, ... - US Patent ... , 2002 - Google Patents

Double Pore Silica Gel Monolith Applied to Liquid Chromatography, J. Sol-Gel Science & ... Nakanishi et al., Phase Separation in Silica Sol-Gel System Containing Poly(Ethylene Oxide) ... et al., High-Resolution Liquid Chromatography of Fluorescent Dye-Labeled Nucleic Acids, Analytical ...

Cited by 12 - Related articles - All 2 versions

(CITATION) Monolithic Silica-bonded Stationary Phases for Capillary Electrochromatography

DJ Allen - 2003 - Oklahoma State University Library Search

NOVEL MATERIAL FOR USE IN SEPARATION AND SEPARATING METHOD USING THE SAME

Y Ariyama, K Yoshizako, T Otsuno, ... - EP Patent ... , 2003 - freepatentsonline.com

... liquid sample (l) containing a target substance in contact with a **separation medium/separatory** ... the target substance include biological components composed of amino acids, saccharides, **nucleic acids**, etc. ... liquid may be able to flow through this kind of **pore system** (penetrability ...
[Cited by 1](#) - [Related articles](#) - [Cached](#)

Use of adsorbent polymer particles in DNA separation

LH Smiley - US Patent App. 20,650,182, 854, 2002 - [freepatentsonline.com](#)

... 12. A method for the **separation of a nucleic acid** in ... environment allows them to withstand degradation and decomposition Physical properties of particular importance to chromatographic media are (1) sphericity of the particles, (2) high surface area; (3) high pore volume and ...
[Cached](#)

Column for DNA separation by matched ion polynucleotide chromatography

DT Gierke, RM Haeffele, KM Hecker - US Patent ... 2003 - [Google Patents](#)

... **Double Pore Silica Gel Monolith** Applied to Liquid Chromatography, J. Sol-Gel Science & ... Nakaniishi et al., **Phase Separation in Silica Sol-Gel System Containing Poly(Ethylene ... et al., High-Resolution Liquid Chromatography of Fluorescent Dye-Labeled Nucleic Acids**, *Analytical ...*
[Cited by 4](#) - [Related articles](#) - [All 5 versions](#)

High-performance membrane chromatography of supercoiled plasmid DNA

R Giovannini, R Freitag, ... - *Analytical Chemistry*, 1999 - ACS Publications

... no sufficient information concerning characteristics such as accessibility of the adsorptive surface or the pore size distribution for the ... Tennikova, TB; Freitag, R, In *Analytical and Preparative Separation Methods for ...* 9) van Heiden, PD; Hoal, EG In *New Nucleic Acid Techniques ...*
[Cited by 78](#) - [Related articles](#) - [Sci. Direct](#) - [All 7 versions](#)

High-performance liquid chromatography-electrospray ionization mass spectrometry using monolithic capillary columns for proteomic studies

A Premaratne, H Oberacher, W Walcher, ... - *Analytica* ... 2001 - ACS Publications

... The permanent porosity in the **monolith** is created upon phase **separation** of the solid polymer from the liquid porogens during the course of polymerization. Size and morphology of the **pores** strongly depend on several factors, including polymerization kinetics and solvency of ...
[Cited by 184](#) - [Related articles](#) - [Sci. Direct](#) - [All 9 versions](#)

Stimulus responsive affinity chromatographic material and separation/purification method

H Yamashita, ... - US Patent App. 20,040, ... 2003 - [freepatentsonline.com](#)

... which interacts with the target substance include biocomponents composed of amino acids, sugars, **nucleic acids** and ... the support matrix is in the form of beads packed into a separation material, the ... **Pores** having a size of not greater than 0.5 μm (for example, not greater than ...
[Cached](#)

Modes of CEC separation

CM Johnson, AP Mikkelsen, ... - *Journal of Chromatography* ... 2001 - Elsevier

... rigid porous polymer Size, charge and partition CEC packed SEC Controlled pore size silica ... 106-110 **separation** of a range of large proteins using a custom synthesized tetracarboxylic anion ... used to separate nucleobases and even strongly acidic analytes such as **nucleic acids** of ...
[Cited by 3](#) - [Related articles](#) - [Sci. Direct](#) - [All 6 versions](#)

Polymeric monolithic stationary phases for capillary electrochromatography

EF Hilder, F Svec, ... - *Electrophoresis*, 2002 - Wiley Online Library

... 3943 6.1 **Pore size and efficiency** ... This flexibility enables the easy tailoring of both the interactions that are required for specific separation modes and ... exerted over the polymerization process enables the facile optimization of the porous properties of the **monolith**, and conse ...
[Cited by 122](#) - [Related articles](#) - [Sci. Direct](#) - [All 6 versions](#)

Polymeric support having novel pore structures

P Buasch, R Paimgren, ... - US Patent App. 20,650, ... 2003 - [freepatentsonline.com](#)

... In an alternative embodiment, the surface of the primary and/or secondary **pores** has been rendered hydrophilic ... to the invention can be used as a chromatographic adsorbent for isolation or separation of biomolecules, such as proteins, **nucleic acids**, such as ...
[Cached](#)

Inorganic monolithic mouldings coated with organic polymers

Z Bayram-Turhan, K Unger, ... - US Patent App. ... 2003 - [freepatentsonline.com](#)

... employed for the **separation** or purification of biological materials, such as proteins, **nucleic acids**, etc ... conditions arise in the **monolith**, again resulting in an impairment of the **separation** properties. ... In addition, a suitable choice of the **pore** structure of the inorganic moulding and of ...
[Cached](#)

Capillary electrochromatography: a rapidly emerging separation method

F Svec - *Modern Advances in Chromatography*, 2002 - Springer

... easier to pack. The effect of **pore size** on CEC separation was also studied in detail [70-75]. Figure 9 shows the van Deemter plots for a series of 7- μm ODS particles with **pore size** ranging from 10 to 400 nm. The best efficiency ...
[Cited by 15](#) - [Related articles](#) - [Sci. Direct](#) - [All 16 versions](#)

(PDF from ashu)

Separation and analysis of peptides and proteins

CK Lurie, SM Lurie, M Zhornitsky, ... - *Analytical* ... 1989 - ACS Publications

... N-isopropylacrylamide and N-vinylcarbazole (70:30) were used to chemically coat wide-pore glass (mean pore diameter 2000 Å, particle size 0.16-0.31 mm). This material was then packed into 9 × 1 cm glass columns and used for the **separation** of proteins. ...
[Cited by 58](#) - [Related articles](#) - [Sci. Direct](#) - [All 5 versions](#)

Porous polymer monoliths: an alternative to classical beads

S Zia, R Allington, J Frischel, ... - *Modern advances in ...*, 2002 - Springer

... Since all the mobile phase must flow through the **monolith**, the mass transport within ... The applications of monolithic materials are demonstrated on the chromatographic separation of biological ... Grafting of the pore walls with selected polymers leads to materials with completely ...
[Cited by 37](#) - [Related articles](#) - [All 5 versions](#)

Organic Polymer Support Materials

F Sycek - CHROMATOGRAPHIC SCIENCE SERIES, 2602 - books.google.com
 ... Small pores and large surface areas are essential for the HPLC of small molecules, whereas the separation of large molecules such as proteins and nucleic acids requires significantly larger pores. As a rule, the larger the pores, the lower the overall surface area. ...
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University of California at Berkeley Berkeley, California

F Sycek - HPLC of biological macromolecules, 2602 - books.google.com
 ... Small pores and large surface areas are essential for the HPLC of small molecules, whereas the separation of large molecules such as proteins and nucleic acids requires significantly larger pores. As a rule, the larger the pores, the lower the overall surface area. ...
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Methods and compositions for mutation analysis of polynucleotides by liquid chromatography

PD Taylor... - US Patent App. 20/050725,261, 2002 - freepatentsonline.com
 ... In the separation method, a mixture containing both heteroduplex and homoduplex nucleic acid molecules is applied to a stationary reverse-phase support. The sample mixture is then eluted with a mobile phase containing an ion-pairing reagent and an organic solvent. ...
[Cited by 2](#)

Microfluidic integrated microarrays for biological detection

JAA West, TJ Sheppard, SK Griffiths... - US Patent App. ..., 2003 - freepatentsonline.com
 ... Larger pore sizes lead desirably to lower pressure differential. ... residue and to a lesser extent to the N7 position on an adenine nucleic acid base to ... The mobile polymer monolith microvalves are typically fabricated by photoinitiating phase-separation polymerization in specified ...
[Cited by 2](#)

Targeted separation protocols for rapid characterizations of polymers

A Salifu, M Petro, RB Nielsen... - US Patent 6,491,823, 2002 - Google Patents
 10,2002 (S4) TARGETED SEPARATION PROTOCOLS FOR RAPID CHARACTERIZATIONS OF POLYMERS (75) Inventors: Adam Salifu, Berkeley, CA (US); Miroslav Petro, San Jose, CA (US); Ralph B. Nielsen, San Jose, CA (US); Eric Carson, Palo Alto, CA (US) (73) Assignee ...
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Applications of monolithic silica capillary columns in proteomics

B Barcelo, D Cubas... - Journal of proteome research, 2003 - ACS Publications
 ... of the cells and soluble components from the human lung (phospholipids, nucleic acids, and ... diffusion barrier, namely the use of silica particles with an appropriate pore diameter of ... Figure 8 Reversed phase separation on a Chromolith CapRod RP18e monolithic silica capillary ...
[Cited by 42](#) - [Related articles](#) - [All 3 versions](#)

Silica gel-based monoliths prepared by the sol-gel method: facts and figures

AM Schmitt - Journal of Chromatography A, 2003 - Elsevier
 ... capillary columns prepared by copolymerization of styrene and divinylbenzene inside a 200-µm ID fused-silica capillary to analyse nucleic acids by ... By combining the sol-gel reaction with phase separation and a subsequent solvent exchange treatment, double-pore silica gel ...
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[PDF] Electrophoresis of Nucleic Acids

KR Mitchelson... - bio.lib.ru
 ... 1: Introduction to the Capillary Electrophoresis of Nucleic Acids Edited by: KR Mitchelson and J. Cheng © Humana Press Inc., Totowa, NJ 1. Capillary electrophoresis (CE) technology has been rapid over the past three years for application to the analytical separation in a ...
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Recent progress in high-performance capillary bioseparations

CW Huie, G Stecher, RB Nielsen... - Electrophoresis, 2003 - Wiley Online Library
 ... into and out of the stagnant mobile phase present in the micro- and meso- pores of the ... of silica particles and PS/DVB monolith in a capillary column format for the separation of proteins ... the basis of PS/DVB, we found that in addition to proteins, peptides, and nucleic acids also ...
[Cited by 23](#) - [Related articles](#) - [All 3 versions](#)

Manufacturing process for porous material

H Berg... - US Patent App. 20/040039,193, 2003 - freepatentsonline.com
 ... The ratio between the pore diameters of the micropores may in the preferred variants extend up to 0.05 but is otherwise ... [0048] Beads having densities above about 1 g/cm 3 (in a wet swollen state) are used in separation methods involving ... [0059] (g) complementary nucleic acids ...
[Cited by 2](#)

Microfluidic integrated microarrays for biological detection

JAA West, TJ Sheppard, SK Griffiths... - US Patent App. 10/... , 2003 - Google Patents
 ... A number of problems are associated with using gel-based separation for capturing and concentrating sample nucleic acids ... on the surfaces of the pores that are capable of contacting and bonding to analytes passing through the pores. [0042] The term "nucleic acid" refers ...

Design of the monolithic polymers used in capillary electrochromatography columns

F Sycek, EC Peters, D Sýkora... - Journal of Chromatography A, 2000 - Elsevier
 ... The genesis, properties and applications of these novel separation media have recently been detailed ... the same redox system, the second polymerization proceeded within the pores of the ... Reaction of both epoxide and hydroxyl functionalities located within the monolith with 1,2 ...
[Cited by 222](#) - [Related articles](#) - [All 8 versions](#)

Monolithic porous polymer for on-chip solid-phase extraction and preconcentration prepared by photoinitiated in situ polymerization within a microfluidic device
 C. Yu, W. Li, J. S. Sauer, ... - *Analytical Chemistry*, 2004 - ACS Publications
 ... HPLC and CEC of small molecules, chiral compounds, proteins, peptides, and nucleic acids. ...
 The pore size distribution and specific surface area of these monolithic materials were determined ...
 from a homogeneous solution and (ii) to control the phase separation process during ...
 Cited by 235 - Related articles - Full Text - All 6 versions

High speed immuno-affinity chromatography on supports with gigapores and porous glass
 M. Schuster, E. Wassarbauer, A. Neubauer, ... - *Bioseparation*, 2000 - Springer
 ... the immobilization of affinity ligands such as antibodies, enzymes, lec. lins, nucleic acids, and ...
 pores of uniform and precisely controlled size with a mean pore diameter of ... of chromatographic
 columns packed with conventional porous particles in terms of separation power, capa ...
 Cited by 28 - Related articles - Full Text - All 6 versions

(PDF) New chromatography columns and accessories at the 2001 Pittsburgh Conference, Part I
 RE. Magers - *LC GC EUROPE*, 2001 - chromatographyonline.com (PDF) from finda
 ... mesopores: 130 Åp, 500 Åp, 18% carbon loading; monolith design enables high flow rates with
 good efficiency. ... The recommended application for this column is the separation of sugars, because
 the diol shows ... on 6- m dp ultrahigh-purity silica media with 120-Å pore diameters ...
 Cited by 18 - Related articles - View as HTML - Full Text - All 11 versions

Chip-based solid-phase extraction pretreatment for direct electrospray mass spectrometry analysis
 using an array of monolithic columns in a polymeric substrate
 A. Tan, S. Benetton, ... - *Analytical Chemistry*, 2003 - ACS Publications
 ... Since covalent bonding to the channel walls is not involved, the monolith was retained ... Zeonor
 polymer chip; (B) SEM image showing the details of monolithic nodules and pores. ... Since some
 partial separation or limited chromatography may be expected in SPE techniques, the ...
 Cited by 86 - Related articles - Full Text - All 7 versions

Denaturing high-performance liquid chromatography: A review
 W. Xiao, ... - *Human Mutation*, 2001 - Wiley Online Library
 ... (b) was generated using a poly(styrene-divinylbenzene) monolith synthesized in situ in a ... Both
 chromatograms underscore the excellent size-dependent separation efficiency of poly(styrene ...
 benzene) in ion-pair reversed-phase liquid chromatography of nucleic acids enabling ...
 Cited by 694 - Related articles - Full Text - All 4 versions

Membranes, membrane processes, and their applications: needs, unsolved problems, and challenges of the 1990s
 A. S. Michaels - *Desalination*, 1990 - Elsevier
 ... Microporous membranes can also be rendered selectively adsorptive by coupling ionically
 charged groups to the pore surfaces, thereby producing anion/cation-exchange membranes. ...
 Separation of immunoglobulin from albumin, or of nucleic acids from proteins, can often ...
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(PDF) Membrane-Assisted Isoform ImmunoAssay: Separation and determination of protein isoforms
 M. Lönnerberg - 2002 - uio.diva-portal.org (PDF) from diva-
 Page 1. Membrane-Assisted Isoform ImmunoAssay: Separation and Determination of Protein
 Isoforms BY MARIA LÖNNERBERG UPPSALA UNIVERSITY 2002 ... Membrane-Assisted Isoform
 ImmunoAssay Separation and determination of protein isoforms BY MARIA LÖNNERBERG ...
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Method for the separation of bioproducts
 J. Galway, R. Hahn-Kaul, ... - *US Patent App.*, 20040100000, 2003 - freepatentsonline.com
 ... September, 2003 - 2003/073124 fluoropyrimidine nucleic acid ligands ...
 ... ion exchange material or a hydrophobic material conventionally used in separation
 processes based ... PAA with high molecular weight did not diffuse inside the pores of the ...
 Cited by 2

Ligand binding assay and kit with a separation zone for disturbing analytes
 J. Carlsson, ... - *US Patent App.*, 10/633,654, 2003 - Google Patents
 ... The matrix may be in the form of monolith, sheet, column, membrane, separate flow chan- nels ...
 that deter- mine how the separation will succeed are the length of the separation zone, ligand ...
 binding lectins; Ig(Fc)-binding protein (such as Pro- tein A and G); nucleic acid, such as ...
 All 2 versions

Methods and reagents for analysis of RNA structure and function
 D. P. Hornby, ... - *US Patent App.*, 20/020,094, 539, 2002 - freepatentsonline.com
 ... (1987) Nucleic Acids Res. ... theory, it is believed that pores having dimensions that allow movement
 of the polynucleotide into the interconnected pore structure and ... A monolith is a polymer separation
 media, formed inside a column, having a unitary structure with through pores or ...
 Cited by 2

(BOOK) Separation Technologies for the Industries of the Future
 ... (US). Panel on Separation Technology for Industrial ... - 1998 - books.google.com
 ... Separation Technologies for the Industries of the Future Panel on Separation Technology for
 Industrial Reuse and Recycling Committee on Industrial Technology Assessments National
 Materials Advisory Board Commission on Engineering and Technical Systems National ...
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(BOOK) Monolithic materials: preparation, properties, and applications
 F. Sauer, ... - 2003 - books.google.com
 ... 281 13.4 Approaches to imprinted monoliths with flow through pores 284 13.5 Conclusions 297
 13.6 Acknowledgements ... 417 Christian G. HUBER and Herbert OBERACHER 19.1 Introduction
 418 19.2 Liquid Chromatographic Separation Systems for Nucleic Acids 419 ...
 Cited by 211 - Related articles - Library Search - All 2 versions

Non-polar media for polynucleotide separations

DT Gjerdie... - US Patent 6,372,130, 2002 - Google Patents

... **Double Pore Silica Gel Monolith Applied to Liquid Chromatography**, J. Sol-Gel Science & ... Nakanishi et al., **Phase Separation in Silica Sol-Gel System Containing Poly(Ethylene ... et al., High-Resolution Liquid Chromatography of Fluorescent Dye-Labeled Nucleic Acids**, Analytical ...

Cited by 6 - Related articles - All 2 versions

Method for isolating single-stranded DNA

DP Hornby... - US Patent App. 09/770,846, 2001 - Google Patents

... which provides sufficient amplification so that the target sequence can be detected by nucleic acid hybridization ... [0048] In a preferred embodiment of the invention, the chromatographic separation medium comprises nonporous beads, ie, beads having a pore size that ...

Cited by 3 - Related articles - All 2 versions

Methods and reagents for analysis of RNA structure and function

DP Hornby... - US Patent App. 10/059,287, 2002 - Google Patents

... [1987] **Nucleic Acid Res** ... [0064] In a preferred embodiment of the invention, the chromatographic separation medium comprises ... 18, 2002 6 beads, ie, beads having a pore size that essentially excludes the polynucleotides being separated from entering the bead, although ...

Cited by 3 - Related articles - All 2 versions

Methods and reagents for analysis of rna structure and function

DP Hornby... - US Patent App. 09/727,135, 2000 - Google Patents

... [1987] **Nucleic Acid Res** ... [0064] In a preferred embodiment of the invention, the chromatographic separation medium comprises ... 4, 2002 6 beads, ie, beads having a pore size that essentially excludes the polynucleotides being separated from entering the bead, although porous ...

All 2 versions

Chromatographic performance of a thin microporous bed of nitrocellulose

M Leinberg... - ... of Chromatography B: Biomedical Sciences and ... 2001 - Elsevier

... and speed-up analytical chromatographic techniques suitable for work with proteins, nucleic acids and ... α 2 sample contributes proportionally more in the initial part of the separation, yet, even ... zone broadening during BFB migration was studied in membranes with pore sizes of 3 ...

Cited by 13 - Related articles - All 6 versions

Method and device for isolating and purifying a polynucleotide of interest on a manufacturing scale

R Necina, J Urnhaier, A Podgornik... - EP Patent ... 2003 - freepatentsonline.com

... have been made with polynucleotides in the field of gene therapy and nucleic acid vaccines ... consequence, mass transport is enhanced by convection and has a positive effect on the separation. ... made of a single piece of porous silica with a defined bimodal pore structure having ...

Related articles - Cited by 1

Detection of polymorphisms by denaturing high-performance liquid chromatography

PJ Oefner - US Patent App. 09/244,002 - Google Patents

... in the present methods may be any reverse phase solid support, including monolith station- any ... carried out under pH conditions effective to maintain complete denaturation of the nucleic acids. ... US 6,453, 244 B1 therein is identified using the separation method of the present ...

Cited by 18 - Related articles - All 3 versions

Synthetic Polymers

D Sykora... - Journal of Chromatography Library, 2003 - Elsevier

... combination of fast change in solvency with slow liberation of the dissolved macromolecules from the smaller pores results in ... The sample loading affects the separation much less than in the case of packed beds. ... 34 CG Huber, PJ Oefner, E. Preuss, GK Bonn, **Nucleic Acid Res.** ...

Related articles

Method for DNA fingerprinting

DP Hornby... - US Patent App. 20,020/137,037, 2000 - freepatentsonline.com

... described by Belikov and Wieslander is employed (Belikov & Wieslander (1995) **Nucleic Acids Res.** ... dimensions that allow movement of the polynucleotide into the interconnected pore structure and ... A monolith is a polymer separation media, formed inside a column, having a ...

Cited by 1

Maxam gilbert a/a sequence analysis by DHPLC

DP Hornby... - US Patent App. 10/059,151, 2002 - Google Patents

... ladder described by Belikov and Wieslander is employed (Belikov & Wieslander (1995) **Nucleic Acids Res.** ... [0057] In a preferred embodiment of the invention, the chromatographic separation medium comprises nonporous beads, ie, beads having a pore size that ...

All 2 versions

Process for performing polynucleotide separations

DT Gjerdie, RM Haeffele... - US Patent 6,156,206, 2000 - Google Patents

... od DNA Fragments on Non-Porous Poly(Styrene-Divinylben- zene) Particles, **Nucleic Acids Research** ... Nakanishi et al., **Double Pore Silica Gel Monolith Applied to Liquid Chromatography**, J. Sol ... Rod of Macroporous Poly- (styrene-co-divinylbenzene) as a Separation Medium of ...

Cited by 6 - Related articles - All 2 versions

Method for DNA fingerprinting

DP Hornby... - US Patent App. 09/728,918, 2000 - Google Patents

... ladder described by Belikov and Wieslander is employed (Belikov & Wieslander (1995) **Nucleic Acids Res.** ... [0055] In a preferred embodiment of the invention, the chromatographic separation medium comprises nonporous beads, ie, beads having a pore size that ...

DETECTION OF POLYMORPHISMS BY DENATURING HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY

PJ Oefner - US Patent App. 20,020/150,892, 2000 - freepatentsonline.com

... Any of a number of commercially available reverse phase solid supports may be utilized in the present nucleic acid separation method, although ... A porous stationary phase may contain more than one type of pore or pore system, eg, containing micropores (less than about ...

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Calcium phosphate microcarriers and microspheres

[L B Stirling](#) - US Patent 6,558,532, 2002 - Google Patents

... in the range of about 20% to about 60% and a pore size range ... column while maintaining the ability to separate and purify proteins, enzymes, nucleic acids, viruses ... wall of the hollow porous microsphere improves permeability for greater efficiency of separation and purification. ...

[Cited by 71](#) - [Related articles](#) - [All 4 versions](#)

Method for producing liquid chromatography matrices

[N Norman](#) - US Patent App. 10/451,193, 2003 - Google Patents

... The ratio between the pore diameters of the macropores and the bead diameter typically ... IgG etc), [0056] (d) chelators and chelates, [0057] (e) complementary nucleic acids, [0058] ... EXPERIMENTAL PART Example 1 [0061] Determination of the Hydrophobicity of Separation Media ...

Recent developments in ion chromatography

[C Serzanini](#) - Journal of Chromatography A, 2002 - Elsevier

... eg Vydac 301 VHP576 proved to be suitable for the separation of proteins and related compounds. [Lesignoli et al.](#) [43] used this kind of stationary phase in the HPLC analysis of single- or double-stranded oligonucleotides using complementary peptide nucleic acid (PNA) ...

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[\[PDF\] from nau.e](#)

High performance reversed-phase liquid chromatography using novel ctm RP-SDVB monolithic supports

[M Merzari](#), [A Podgornik](#), [M Benut](#), ... - Journal of liquid ... 2001 - Taylor & Francis

... Oligodeoxynucleotide was synthesized on a controlled pore glass solid support using conventional phosphoramidite chemistry with the DNA synthesizer (Expedite Nucleic Acid Synthesis ... which have already proven to be very efficient for the separation of large ...

[Cited by 19](#) - [Related articles](#) - [All 10 versions](#)

[PDF] Douglas T. Gierde, Christopher P. Hanna, David Hornby

[DNA/COT Gierde](#) - 2002 - [bio.tiera.ru](#)

... 167 mismatch endonuclease 163 mixer 22 MMAC1 98 mobile phase 42 molar absorptivity 30 molar concentration 39 molecular diagnostics 171 monolithic polymeric columns ... Gel electrophoresis has allowed the separation and purification of a wide variety of nucleic acid mole ...

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Macroporous cross-linked polymer particles

[T Sodeman](#) - US Patent App. 10/614,857, 2003 - Google Patents

... 0.091 300 500 0 450 500 - 1000 0 213 0 090 1000 - 2000 2000 - 5000 Pore Radius (A ... separation methods are useful eg for recovery of biomolecules, such as nucleic acids and ... 5,334,310 discloses a liquid chro- matographic column that contains a separation medium in the form ...

Properties and applications of proteins encapsulated within sol-gel derived materials

[W Jin](#), [J D Brennan](#) - Analytica Chimica Acta, 2002 - Elsevier

... in the use of biomolecules for the selective extraction, delivery, separation, conversion and ... species, including enzymes, antibodies, regulatory proteins, membrane-bound proteins, nucleic acids and even ... for electrochemical sensors and (c) they have a tuneable pore size and ...

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Macroporous cross-linked polymer particles

[T Sodeman](#) - US Patent App. 20/050/141,477, 2003 - [freepatentsonline.com](#)

... separation methods are useful eg for recovery of biomolecules, such as nucleic acids and ... 5,334,310 discloses a liquid chromatographic column that contains a separation medium in the form of a ... Such a large pore diameter range is advantageous for monoliths to allow a high ...

[Cited by 4](#)

Method and system for the preparation of cDNA

[KH Becker](#), [A Azarant](#), [D Hornby](#), ... - US Patent ... 2003 - Google Patents

... In another preferred embodiment, the library of cDNA inserts comprises cDNA inserts residing in nucleic acid vectors, such as chromosomal and phage vectors, which are preferably maintained in host ... 1st In another embodiment, the separation medium comprises a monolith. ...

[Cited by 9](#) - [Related articles](#) - [All 3 versions](#)

Quantitative fast fractionation of a pool of polyclonal antibodies by immunoaffinity membrane chromatography

[GA Plesanova](#), [GA Pankova](#), [IV Ilna](#), ... - ... of Chromatography A, 1999 - Elsevier

... such as proteolysis [19, 20, 21, 22, 23, 24, 25 and 26], hydrolysis of nucleic acids [19 ... chromatography (HPLC) is a very useful separation method that allows to carry out the separation of complex ... The porous polymer had a mean pore size of 800 nm, a pore volume of 0.6 ml/ml ...

[Cited by 61](#) - [Related articles](#) - [All 9 versions](#)

Temperature-modulated array high-performance liquid chromatography

[A Prentiss](#), [W Xiao](#), [H Oberacher](#), ... - Genome ... 2001 - [genome.cshlp.org](#)

... the ratio of styrene to divinylbenzene affect the degree of polymerization and, consequently, pore size ... pressure was greater in case of the capillary columns that retained the nucleic acids longer ... Rather, it can be applied to any chromatographic separation sensitive to temperature ...

[Cited by 26](#) - [Related articles](#) - [All 11 versions](#)

[\[HTML\] from csh](#)

[PDF] Douglas T. Gierde, Christopher P. Hanna, David Hornby DNA Chromatography

[DNA/COT Gierde](#) - 2002 - [schib.org](#)

... 2 Polymeric Res 56 3 4,2 1 Substrate and Crosslinking 59 3,4,2,2 Porous and Nonporous Resins 59 3,4,2,3 Monolithic Polymeric Columns ... review articles published in 1986 and 1987 are a series of 6 publications, each dealing with some aspect of nucleic acid separation. ...

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[Related articles - View as HTML](#)

Chromatography material and a process of manufacturing that material

A Jungbauer, R Hahn, A Podgornik... - US Patent App. ..., 2002 - [freepatentsonline.com](#)
... reacted with glycidyl methacrylate and the resulting conjugate is further processed after **separation** of byproducts. ... 0034) The spacer is selected considering the **pore** size of ... the purification of plasma proteins, recombinant proteins, plant protein, bacterial proteins, **nucleic** acids such ...
[Cachet](#)

Methods, systems, and kits for analysis of polynucleotides

EL Tsegayeb, JS Rudolph... - US Patent App. 10/288,406, 2002 - [Google Patents](#)
... SYBR Green II stain, or a mixture thereof in a separate containers, SYBR Gold **nucleic** acid stain or PicoGreen. [0011] In still another aspect the invention provides an apparatus for analyzing polynucleotides including: (a) means for chromatographic **separation** wherein one or ...
[Cachet](#)

From the combinatorial chemistry boom to polymer-supported parallel chemistry: established technologies for drug discovery

M Caro... - *Drugs of the future*, 2003 - [journals.pruw.com](#)
... This process allows simultaneous activation of the acid 2 and **separation** from ester impurities ... heated to achieve polymerization initiated by radicals anchored at the **pore** surface, ... of a natural product (107-111), in addition to biopolymers (peptides, **nucleic** acids, oligosaccharides ...
[Cited by 16](#) - [Related articles](#) - [All 6 versions](#)

Advances in sample preparation in electromigration, chromatographic and mass spectrometric separation methods

M Gilar, EJP Bouvier... - *Journal of chromatography A*, 2001 - Elsevier
... Analyte is eluted onto the analytical column where the **separation** of the analyte from residual interferences is performed. ... After the sorbent is wetted, water of aqueous buffer (sample) can displace the organic solvent in the **pores**. ...
[Cited by 65](#) - [Related articles](#) - [All 7 versions](#)

Composite matrices with interstitial polymer networks

RP Hammer... - US Patent App. 20/0207..., 2001 - [freepatentsonline.com](#)
... More preferred crosslinking agents have polymer spacer regions from 24-120 atoms **separation**. ... parallel synthesis composites is a matrix of glass fibers (filter paper) with preferred **pore** diameters of 5 ... (0075) Preferred embodiments of parallel composites for **nucleic** acid synthesis ...
[Cachet](#)

Method and system for RNA analysis by matched ion polynucleotide chromatography

DT Gierda, DP Horvay, CP Hanna... - US Patent ..., 2003 - [Google Patents](#)
... Microperformance **Separation** of Transfer Ribo- **nucleic** Acids by High-Performance Liquid Chromatography. *Journal of Chromatography*, 463:409-417 (1989). Drager et al. ... **Separation** of Oligo-RNA by Reverse-Phase HPLC, *Nucleic Acids Research*, No. 4, 7:1067-1080 (1978). ...
[Cited by 2](#) - [Related articles](#) - [All 3 versions](#)

Electroosmotic and pressure-driven flow in open and packed capillaries: velocity distributions and fluid dispersion

U Tallarek, E Rapp, T Schöenen... - *Analytical ...*, 2000 - ACS Publications
... University, Dreijenlaan 3, 6703 HA Wageningen, The Netherlands, and Research Center of Nucleic Acid and ... high-purity particles (d p = 40 µm with 9-nm average **pore** size) were ... can largely explain the reduced number of theoretical plates obtained for a given **separation**. ...
[Cited by 24](#) - [Related articles](#) - [Bil. Citat](#) - [All 8 versions](#)

[PDF] from wau

Modifying double stranded DNA to enhance separations by matched ion polynucleotide chromatography

DT Gierda, PD Taylor... - US Patent 6,210,695, 2001 - [Google Patents](#)
[Cited by 12](#) - [Related articles](#) - [All 2 versions](#)

Hydrotreating catalyst and method

R Gallardo, G Arreaza, S Quenza... - US Patent App. ..., 2003 - [freepatentsonline.com](#)
... 20080269475, Sorbent for **Nucleic** Acids, Comprising Acid-Activated Layer Silicate, October, 2008, Schöning... 3 (g and a ratio of mesopore **pore** volume to total **pore** volume of ... such a process is a hydrotreatment process following hydrodesulfurization and hot **separation** whereby a ...
[Cachet](#)

Novel functionalized polymer for oligonucleotide purification

VJ Shah - US Patent App. 20/240053, 2003 - [freepatentsonline.com](#)
... Preferably, the porous beads have a **pore** size of at least 100 Å, and more preferably about ... limited to applications involving purification of oligonucleotides, but is useful in the chromatographic **separation** of analytes including, but not limited to, **nucleic** acids, peptides ...
[Cachet](#)

Chromatography material and a process of manufacturing that material

A Jungbauer, R Hahn, A Podgornik... - US Patent ..., 2003 - [Google Patents](#)
... glycidyl meth- acrylate and the resulting conjugate is further processed after **separation** of byproducts ... of the com- pound B. The spacer is selected considering the **pore** size of ... purification of plasma proteins, recom- nant proteins, plant protein, bacterial proteins, **nucleic** acids such ...
[Cited by 1](#) - [Related articles](#) - [All 4 versions](#)

Method and system for the preparation of cDNA

RT Hecker, A Azarani, D Horvay... - US Patent App. ..., 2001 - [freepatentsonline.com](#)
... fragments of DNA, or, more typically, will reside as inserts in a **nucleic** acid vector. ... **pores** having dimensions that allow movement of the nucleotide into the interconnected **pore** structure and ... A monolith is a polymer **separation** media, formed inside a column, having a unitary ...
[Cachet](#)

Focus: Dealing with 'real' samples: sample pre-treatment in microfluidic systems

AJ de Mele, ... - Lab on a Chip, 2003 - pubs.rsc.org

... to 10 $\mu\text{L min}^{-1}$) are achievable due to the facile control of pore sizes, and ... The high degree of functional integration (reagent mixing, product separation and post-column labelling) provides ... tools to efficiently and rapidly analyse entities such as proteins, cells, nucleic acids and ...

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Manufacture of improved support matrices

E Berggren, ... - US Patent App. 20,030,144, 127, 2002 - freepatentsonline.com

... Separation processes include chromatographic processes and batch-wise processes ... beam or gamma-ray irradiation, it will in principle be possible to produce support matrices having predetermined particle size and pore size distributions ... [0066] (g) complementary nucleic acids ...

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